HIV and HCV

According to the US Centers for Disease Control, approximately one-quarter of HIV-infected persons in the United States are also infected with hepatitis C virus; this incidence is 50% to 90% among IDUs with HIV.4

HCV-associated liver fibrosis is accelerated in HIV-infected individuals, especially in those with low CD4 (<200 cells/mm³), coexisting HBV infection, continuous alcohol consumption, and/or older age. In the US, it is recommended that all patients with HIV be screened for HCV; if the ELISA is positive then an HCV virus load is measured. If HCV is detected, the genotype should also be determined. To minimize further damage to the liver, the patient is given the recommendation to avoid alcohol intake, and vaccination for Hepatitis A and B virus (if not already immune due to hepatitis B infection).

With the improvement of HIV therapy, end stage liver disease (ESLD) is becoming the most common cause of non-AIDS related death in co-infected patients.6 HCV in patients infected with HIV has many consequences, of which the best known are an increased incidence of drug induced liver injury, HCV-related glomerulonephritis, and porphyria cutanea tarda. Many other co-morbidities have been linked to HCV infection, such as diabetes mellitus and lymphoma.

Treatment of HCV

Treatment of HCV is becoming increasingly important in this population, although it is challenging given generally lower rates of Sustained Viral Response (SVR) compared to HCV monoinfected patients. On average, patients infected with HCV genotype 2 & 3 receiving standardized treatment of pegylated interferon with ribavirin (usually weight based) use of for 48 weeks have SVR rates of approximately 65%. Those patients with genotype 1 HCV reach SVR rates approximately 30% of the time.7

Very few commonly used antiretroviral agents adversely interact with interferon and ribavirin. The two best studied interactions are ribavirin: didanosine, and ribavirin: zidovudine. When co-administered with ribavirin, didanosine concentrations increase, which can lead to an increased risk of mitochondrial toxicity. This interaction may increase the risk of pancreatitis, and lactic acidosis with liver failure, especially in patients with advanced liver fibrosis. Ribavirin can also potentiate anemia in those receiving zidovudine. Other toxicities reported more frequently in co-infected patients are weight loss and anemia. Although the absolute number of CD4 cells will decrease on therapy, the CD4 percentage (a better marker in this setting) and the HIV virus load are not adversely affected.

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